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ABSTRACT

The effectiveness of an educational intervention program in increasing the parenting skills and knowledge of adolescents with infants was evaluated. The early part of the program consisted of an "informal" group which received individual counseling without a formal curriculum. This group consisted of 29 mothers whose babies were two months of age, and decreased to 10 mothers 4 months later, and to 9 mothers 10 months later. A second group received "formal" instruction in the form of small group discussions involving up to eight mothers, their babies, and a group leader. Discussion topics focused on issues and concerns relevant to the infant's stage of development. The total sample receiving formal instruction consisted of 62 mothers whose babies were two months of age. The entire sample remained 4 months later, and 15 of the babies had reached their first birthday at the close of the study. Pretest and posttest and baseline data were collected by means of a questionnaire on 6 areas of knowledge: child development, community resources, family planning, safety, adolescent development, and child care. In general, the data for all 6 indices reflected an increased knowledge base for mothers who were participating in both the formal and informal educational programs. (Author/SS)

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The Johns Hopkins Medical Institutions
Center for School-Aged Parents and Their Infants

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FINAL REPORT TO THE OFFICE OF CHILD DEVELOPMENT

January, 1980

ADOLESCENTS AS PARENTS:
DEVELOPMENT AND ASSESSMENT OF A PARENTING EDUCATION
PROGRAM FOR THE FIRST YEAR AFTER BIRTH

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PROGRAM FOR THE FIRST YEAR AFTER BIRTH

INTRODUCTION

From our observations, adolescent mothers (i.e., mothers who became pregnant while 17 years of age or below) frequently lacked the skills and information required to be adequate parents. As a result, their infants appeared to have numerous health problems, and possibly also developmental problems in terms of language and other cognitive functions. We believed that these young mothers lacked both: (1) the information necessary for good child care and the proper stimulation of development; and (2) role models for good parenting. As 76% of the girls were, themselves, born by women who had their first child as a teenager, 51% of whom were 17 years old or below at their first delivery, lack of adequate role models is prevalent in this urban, largely black (80%) population.

Increased frequencies of infant death and child abuse and neglect have been described among the children of teenagers ⁽¹⁾ and in our experience, health problems are very frequent.

We hypothesized that identification of the information lacked, followed by educational programs designed to make up the deficits could improve the parenting process and the health and well being of the children.

EDUCATIONAL PROGRAM

The Johns Hopkins Center for School-Aged Parents and Their Infants offers a program designed to prevent or mitigate some of the adverse consequences of adolescent childbearing. These consequences are increased risks of: (1) complications of pregnancy, labor and delivery; (2) perinatal and later infant death; (3) birth of infants of low birthweight; (4) developmental defects in surviving children; (5) child neglect and abuse; and (6) for the mother after delivery, increased risk of: (a) early repetition of pregnancy; (b) school drop out with limitation on employment; (c) long-term welfare dependency; (d) family instability with separation, etc. These adversities have been described by us and many others during the course of the past few years. A recent publication by the Stanford Research Institute indicates that each first birth to a teenager in 1979 will cost the taxpayers an estimated average of \$18,710, spread over the next 20 years, for medical, welfare and education costs over and above those experienced for births to women of 20 years and above (2). The average costs are higher for adolescents than older teens.

The program offered by the Center has experienced some success both in terms of immediate pregnancy outcome and in the well being of mother and child during the first three years after birth (3). We have some evidence to suggest that the intensive health and psychosocial educational program, which is an integral part of both prenatal and follow-up programs, is, to a large extent, responsible for the success.

This program depends heavily on a values clarification process throughout the educational activities. The intent is to help the adolescents develop a sense of personal responsibility and caring, for themselves and their child, and to sort out for themselves, their values and objectives so that they may plan appropriately for themselves and their infants. These concepts are new to many of them.

The educational content is carefully chosen to meet their information needs. All staff members have responsibility for education on an individual basis in their special areas of expertise and in family planning, which we all reinforce. An educational curriculum has been developed for the prenatal and perinatal periods. This project, supported by the Office of Child Development, permitted development of a 'formal' educational program for the first year after delivery of the child. Not only did the project permit development of materials, it permitted an initial assessment to determine where the information deficits might lie and an assessment of the possible effectiveness of the materials and methods developed.

In addition to the individual educational efforts of staff members, the 'formal' educational program consists of small group sessions with up to eight mothers and their babies. These sessions are led by the educator, Mrs. Streett or Dr. Welcher. The group process is an important ingredient, with the girls discussing the topics and often exerting considerable peer pressure. Role playing is practiced on occasion. The sessions last approximately 45 minutes. The groups are arranged by age of baby and, where appropriate, the babies are used to demonstrate particular behaviors. The young mothers obviously enjoy these sessions and have to be persuaded to move out of the room when the session is over. Films and other audio-visuals are used on occasion, but in most instances, emphasis is put on discussion and where appropriate, on direct observations of infant behavior. This combination of discussion and observation seems generally more effective than the routine use of visual aids.

Content of 'Formal' Program

Each parent enrolled in the Center participates in educational group sessions during every clinic visit. The groups are organized around the age of the child as each stage of development brings new issues and new concerns.

The groups are informal, yet informative, and although the group leader has specific topics to be developed at each session, she must be flexible and sensitive to the needs of the participants. The following chart illustrates the issues which the educator raises during the sessions designed for each age level.

6 WEEKS:

- (1) Orientation to the Center
 - Philosophy
 - Services provides
 - Responsibilities of the parents
 - Tour of the facility
- (2) Values clarification around the issue of parents' responsibilities, to themselves and the infant, role of grandparents;
- (3) What can an infant do?;
- (4) "Games" to play (to stimulate development);
- (5) What to expect at next appointment, shots and reactions, examination;
- (6) Infant safety;
- (7) Nutrition information;

2 MONTHS:

- (1) Signs of illness;
- (2) How to read a thermometer;
- (3) Values clarification - family planning;
- (4) Nutrition information;
- (5) Child development
 - Present abilities
 - What new behaviors to expect over next 2 months
- (6) Special problems;
- (7) Dispelling myths;

4 MONTHS:

- (1) Family planning information and values clarification;
- (2) Child development

Present abilities

What new behaviors to expect over next 2 months

- (3) Nutrition information
- (4) Values clarification around school and child care
- (5) Information
- (6) Routines - importance of

6 MONTHS:

- (1) Nutrition information
- (2) Teething
- (3) Separation problems (beginning of)
- (4) Blossoming cognitive and motor capacities
 - How to enhance development
 - Safety
- (5) Encouraging language

9 MONTHS:

- (1) Separation problems
- (2) Nutrition information and self feeding
- (3) What is "spoiling"
- (4) Play and language
- (5) Safety - emphasis on poisoning, falls, burns

12 MONTHS:

- (1) An overview of baby's achievements over first year
- (2) Where he is going
 - Physically, emotionally, socially, cognitively
 - Difficulties of toddler years
- (3) Nutrition

- (4) Safety - emphasis on poisoning, falls, burns
- (5) An overview of parents' achievements during first year
- (6) Parents' ambitions

15 MONTHS, 18 MONTHS, 21 MONTHS, 24 MONTHS:

- (1) Toddler issues
 - weaning
 - toilet training
 - limit-setting in a skilled way
 - independence
- (2) Child's cognitive, physical, socio-emotional capacities
 - How to enhance development
- (3) Safety
- (4) Nutrition - snack's stressed
- (5) Language development
- (6) Heavy emphasis on family planning
- (7) Family planning - values clarification
- (8) Parents' goals

30 MONTHS:

- (1) Above topics and how to find a good day care center
- (2) Benefits of day care experience
- (3) Dental care

36 MONTHS:

- (1) Making transition to new Center
- (2) Family Planning
- (3) Goals for parents, child
- (4) Importance of continued health care for parent and child.

The remainder of this report describes the assessment of the educational program and its effectiveness. Copies of the extensive materials developed will be submitted in the near future.

OBJECTIVES OF THIS STUDY

The objectives of this study were to: (1) assess the level of parenting information possessed by young mothers at the time of their first visit to the postnatal component of the Johns Hopkins Center for School-Aged Parents and Their Infants; (2) develop and present educational materials through formal educational modules, and (3) measure the effectiveness of this educational intervention effort to increase parenting skills and knowledge of adolescents with infants.

The general hypothesis tested, then, holds that exposure to an educational program, coupled with well baby care and developmental screening, will result in an increase in parenting knowledge and ability.

EDUCATIONAL PROGRAM: STUDY OF EFFECTIVENESS

Research Design

Ideally, a classical design calling for pre- and post-intervention measurement of mothers who were exposed to the educational stimulus compared to pre- and post-intervention measurement of mothers who were not exposed, while controlling for parity, maternal age, race, gestational age, and birthweight of the infant, would have been followed. However, as is true of most socio-medical investigations, denial of educational service and exposure to any of these enrolled

violates ethical considerations in general, and is contradictory to the personal commitments of this staff in particular.

The methodological design which was followed then, was a modified panel or succession design (see Table 1). That is, one panel was followed (measured) at each pre-selected point along the time continuum, while the remaining panels were measured only one time each, but at different points on the continuum. The design also required a baseline assessment for comparative purposes, and a pretest to evaluate the suitability of the measurement instrument.

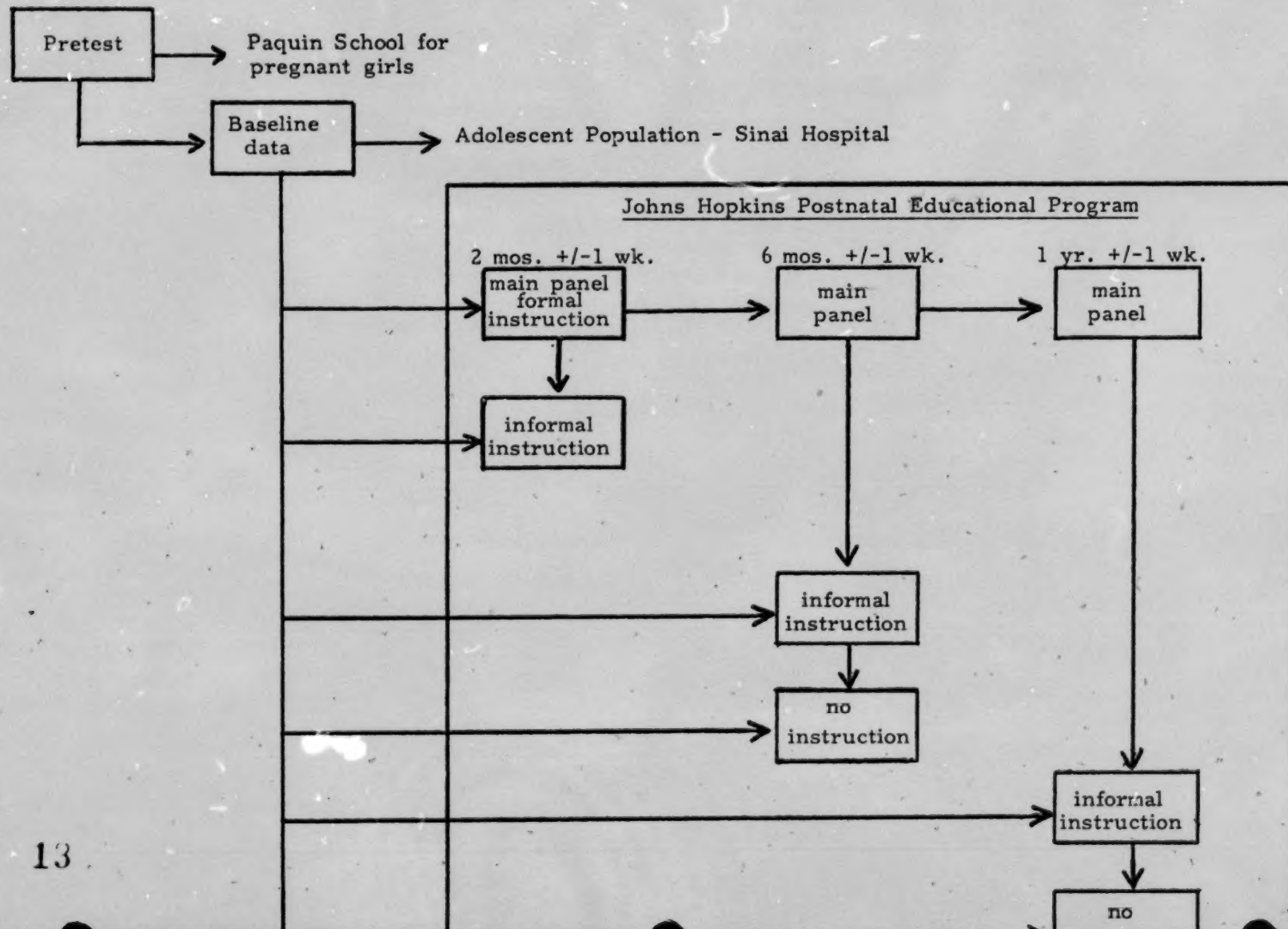
The Age Continuum - Sample Selection

The selection process of the respondents (mothers) in accordance with this design, is described below.

Pretest data were gathered from a haphazard or convenience type, non-probability sample of students enrolled in the Paquin School for pregnant girls in Baltimore, Maryland. In that pregnant girls are permitted to remain in their regular schools if they so desire, enrollment in the Paquin School is voluntary, as was participation in this effort. It is recognized that when provided a choice, the more informed students are more likely to volunteer to participate in variant programs or activities. It is anticipated, therefore, that at the very least, some self selection bias was operative in this voluntary effort. We are most appreciative of the assistance of staff at the Paquin School in this study. Further, the Paquin School is only one, albeit major, of many sources which provide a knowledge

TABLE 1

Research Design (Modified Panel)



base for pregnant adolescents in Baltimore. Because the availability of information about caring for children is so pervasive, it is likely that any adolescent, pregnant or not, has received some exposure to knowledge of parenting. Unfortunately, these educational efforts are not uniform in quality or extensiveness and the end result is often quite inadequate.

After eliminating all Paquin School respondents who were multiparous, pretest results were examined and some refinements to the instrument were introduced on the basis of the answers and questions of the respondents remaining. These were primarily in terms of clarity and ease of reading of the questions posed.

An effort was made to gather data from an obstetrical population of adolescent mothers who had not been exposed to a specific educational program during pregnancy. This effort was confronted by many problems ranging from liaison considerations to attainment of a comparable study population. Although agreement and permission were achieved both with the Sinai Hospital and Baltimore City Hospitals in Baltimore, the available populations were far from comparable in terms of most demographic considerations. Some of these difficulties are noted below.

Baseline data, then, were collected on a non-probabilistic basis from adolescent mothers visiting the Sinai Hospital, in Baltimore, Maryland, for their postpartum and well baby care appointments. Again, completed instruments from respondents who were multiparous were excluded from analysis. Although it had been hoped that all of

the Sinai mothers would be in the immediate postpartum period, the constraints of the clinic environment did not afford such a narrow accessibility. Therefore, a rather eclectic sample population resulted. Caution in interpreting results must also be exercised in light of the non-probability nature of the sample selection.

Although data collected from these mothers were examined and will be commented upon in the text of this report, a comparative analytic approach can not be valid. Indeed, it should not be surprising that some of the variables on which comparisons are made do not reflect great discrepancies. It is expected, however, that ecological fallacies would be significant if the data interpreted were to be extended to the individual case.

The postnatal follow-up clinic serves as an important extension of the initial Johns Hopkins Adolescent Program which was an obstetrical program. Together they form the Johns Hopkins Center for School-Aged Parents and Their Infants. This study began as the postnatal component was going through the transitional 'start up' stage from non-existence to a formal program. As a result, some mothers from the prenatal component enrolled for those services which were available. Although the medical personnel and facilities were operative, the educational dimension was functioning only on an informal basis until this grant was implemented.

The decision to enroll in the postnatal component of the Hopkins Programs dictates some discussion. Approximately one-half of those mothers who deliver within the prenatal component continue their

identity with the Hopkins Center for School-Aged Parents and Their Infants. Intuitively one might assume that these mothers, by definition, manifest the greatest degree of intellectual insight, concern for their infants, and aspiration for the future. Quite the contrary, however, many of the mothers who enroll in follow-up have been especially counseled by the staff of the prenatal component to matriculate into the postnatal program because they are seen as being at higher risk of both medical and social problems and particularly in terms of social dimensions. Therefore, any differences noted in the performance of the sample, which can be seen as a product or a derivative of this program, will be particularly valuable in the continuation of this effort and in the planning of future programs.

Those mothers who were enrolled during the early developmental period compose the three panels of respondents who received 'informal' instruction. Because they were at variant points along the time continuum, only parents whose children were 2, 6 or 12 months old were included in the study. Therefore, in the comparisons to follow, the reader is reminded that the information assessments were made on three separate, but total population panels; the Sinai panel and the 'informal' and 'formal' Hopkins groups. During the developmental phases of the Center program while the 'formal' educational methodology was being developed, the educational efforts were 'informal', i.e., individual counseling without a formal curriculum. When the educational curriculum was developed and the methodology utilized group dynamics in small group sessions led by the educator, the

process became 'formal.' Educational activities, both 'informal' and 'formal' took place at each follow-up visit (well baby care and adolescent health supervision and family planning were also provided). These visits occurred at 2, 4, 6, 9 and 12 months after delivery and during the second and third years.

Finally, the main panel, i.e., the group exposed to the 'formal' education program, was followed throughout the first year of their child's life. Like the 'informal' panels, the main panel for this study is composed of mothers who were seen by the prenatal staff as being at high risk. Therefore, the data tapped for the 'informal' and 'formal' panels were collected for all of the registrants with children of the requisite ages.

The original design for this project called for an additional assessment of adolescent mothers who had delivered their babies within the Hopkins Program, but had not elected to enroll in the postnatal component. However, in light of the emphasis upon high risk mothers for selection into the postnatal component, a matched sample of those variables deemed important could not be achieved. In addition, limited personnel and liaison technicalities prohibited this assessment. It has proved to be difficult and time consuming to track young mothers who are not included in the follow-up.

The final design, then, calls for comparative analysis of data collected for the baseline population, 'informal' instruction groups and the 'formal' instruction panel. The data collected from the mothers enrolled in the 'formal' and 'informal' segments will be examined for the

time periods when their children were two months, six months and one year of age.

In terms of sample size, the baseline data were generated by 44 responding mothers; the 'informal' group at two months numbered 29, at six months 10, and at one year 9. The main panel ('formal' educational exposure) reflected a sample of 62 at two and six months, while only 15 had reached their first birthday at the time of closure for the study. Recognition of the variant subsample sizes signals an additional note of caution in the interpretation of the results and the results must be regarded as preliminary.

Data Collection

The data analyzed in this study were collected by the Center staff (educator) from mothers visiting the Center for regular postnatal clinical appointments. The questionnaire (see Appendix A) was administered in a group ($n=2 \rightarrow 5$) format by asking the mothers to read the items from their own copy while the group leader read each question orally. After each question was read the respondents were asked to write their preferred answer in the appropriate place on the questionnaire prior to proceeding to the next item.

In addition to identification and social background information, data were collected on six basic indices of knowledge (perceived by the staff as important for these mothers). The areas tapped were: child development; community resources; family planning; safety; adolescent development; and child care. Although some of these

areas may not be directly applicable to the concept of parental knowledge and skills, they are indeed applicable to this particular population segment. Adolescent development is included because all of these mothers are adolescents, and must somehow learn to cope with their own growth and development, both physical and socio-emotional, in combination with that of their infant. Further, knowledge of community resources was tapped in order to provide these mothers with information concerning available services that might aid them in specific childrearing activities (e.g., availability of free milk, social service and educational programs), or indirectly by providing access to employment, financial aid, day care services and the like.

Knowledge in each of those six areas was measured by multiple item indices, composed of both multiple choice and true/false questions. The variant indices do not contain an identical number of questions as the minimal necessary informational base for each was judged differently. Child development, for example, was seen as a larger area than the others, and therefore has a substantially larger number of questions (23 true/false and 6 multiple choice). In contrast, family planning and safety, while perhaps equally important, are seen as less involved and extensive and were tapped by only ten questions each (5 true/false and 5 multiple choice).

Responses to the questions which make up these indices were scored in terms of correct answers, incorrect selections and responses of 'not sure.' Correct responses received a score of one point, 'not

sure' a score of two points, and incorrect answers a score of three points. Thus, the potential range for any given index was equal to $N(1) - N(3)$, with lower scores indicative of a greater knowledge base. Each range was in turn trichotomized into most knowledgeable, moderately knowledgeable and least knowledgeable. It should be noted that the delineation of these ranks were made to result in somewhat balanced marginal totals. Substantive importance was emphasized, however, so that the attainment of numerically balanced marginals was not the dominant influence.

DATA: BACKGROUND AND DEMOGRAPHIC

Age of Parents

Although all of the Hopkins study mothers were adolescents, within the rather narrow parameters of 14-18 years, their ages did reflect considerable variance (Table 2). This program only accepted those girls who were below 18 at the time of registration in the prenatal clinic. Therefore, none of the mothers exceeded the age of 18 at the time of their enrollment in the postnatal component. The heterogeneous 'baseline' population (i.e., the Sinai sample) registered a mean age of 16.95 and had the entire range of 14-18 represented. Due to the control problems noted above, however, and because many of these mothers had infants much older than two months, this subsample cannot be used as an absolute base for comparison.

The data collected at 2 months from the Hopkins Program shows that the mothers exposed to the 'informal' program were considerably

TABLE 2

Distribution of Parents by Age

AGE	M O T H E R S							F A T H E R S						
	Baseline		2 mos. informal		2 mos. formal		TOTAL	Baseline		2 mos. informal		2 mos. formal		TOTAL
	N	%	N	%	N	%		N	%	N	%	N	%	
14	1	2.3	3	10.3	1	1.6	5							
15	3	6.8	5	17.2	5	8.1	13			2	6.9	2	3.3	4
16	8	18.2	7	24.1	10	16.1	25	3	7.3	1	3.4	1	1.6	5
17	17	38.6	7	24.1	24	38.7	48	6	14.6	5	17.2	10	16.4	21
18	15	34.1	7	24.1	19	30.7	41	12	29.3	4	13.8	14	23.0	30
19					3	4.8	3	8	19.5	10	34.5	11	18.0	29
20								4	9.8	1	3.4	9	14.8	14
21								3	7.3	6	20.7	5	8.2	14
22								3	7.3			3	4.9	6
23												4	6.6	4
24								1	2.4			1	1.6	1
25												1	1.6	1
27								1	2.4					
Totals:	44	100.0	29	99.8	62	100.0	135	41	99.9	29	99.9	61	100.0	131

younger (16.34) at this stage of parenting, than those of the 'formal' panel (17.03). Although both groups had mothers representing each age interval, the distribution was much more balanced for the 'informal,' with the 'formal' group more strongly represented at the upper end of the adolescent distribution.

It is interesting to contrast these ages with those of the fathers of the babies. Although these ages were reported by the mothers, and are, therefore, subject to greater error, they are felt to be reasonably accurate. This conclusion is reached by comparing the reported ages of the fathers at two months and one year for the 'formal' panel. The discrepancies noted are what they should be, allowing for the specific passage of time.

As would be expected, the fathers are older than the mothers, and the range of ages is considerably greater, with the youngest being 15 and the oldest 27. Despite the much more extensive range, the mean ages are consistently about two years older than the mothers, with the figure for the 'baseline' group (18.9) representing the single exception. This suggests a difference of only five months for this subsample.

The mean age of the fathers of the babies in the 'informal' group at two months was 18.58, slightly more than two years older than the corresponding 'informal' mothers, a difference repeated for the 'formal' panel with a reported mean of 19.06 years. This two year difference is one that is noted within the dating and courtship patterns of adolescents generally. It is widely believed that among most, if not

all, population segments that girls are about two years ahead of boys in their maturation process. If such is the case, these adolescents are rather typical, with the major exception being that they have become parents.

Education of Parents

With the responsibility of caring for a child, the child care skills at one's disposal become increasingly important. Some insight with respect to basic competence may be gained by examining the educational achievement of these young people (Table 3). Recognizing that one year of educational exposure does not necessarily equal one year of educational achievement, at least a crude index of achievement can be noted.

The baseline group had a mean grade completion level of 9.8, with the majority of these mothers having finished their sophomore or junior year in high school. The mean is depressed because one mother had only completed the seventh grade, and three others had terminated their efforts after the eighth grade. However, the mean figure is still superior to that of either the 'informal' or 'formal' panels at two months. This is seen as a function of the generally older age of mothers composing the baseline population.

The 'informal' education group had a mean completed grade level of 9.04, while the 'formal' panel statistic was 9.6. In both of these panels, there were mothers with only seventh and eighth grade completion records, but both also contained high school graduates.

TABLE 3

Highest Grade Completed by Mothers of Babies

GRADES	BASELINE GROUP		INFORMAL EDUCATIONAL GROUP						FORMAL EDUCATIONAL GROUP*			
	N	%	2 mos.		6 mos.		1 year		2 mos.		1 year	
			N	%	N	%	N	%	N	%	N	%
6th			1	3.6								
7th	1	2.4	4	14.3	1	12.5			3	5.2		
8th	3	7.1	7	25.0	1	12.5			11	19.0	1	7.7
9th	11	26.2	6	21.4	2	25.0	3	33.3	9	15.5	3	23.1
10th	15	35.7	4	14.3	3	37.5	1	11.1	20	34.5	1	7.7
11th	12	28.6	3	10.7	1	12.5	3	33.3	13	22.4	6	46.2
12th			3	10.7			2	22.2	2	3.4	2	15.4
Post Secondary												
Totals:	42	100.0	28	100.0	8	100.0	9	99.9	58	100.0	13	100.1

*Mothers in the Formal Group were measured at two points; mothers in the other groups only once.

One-third of each subsample, however, was at the sophomore level. Half of the mothers in the 'informal' group were already back in school, while 60% of the 'formal' panel had returned by two months after delivery. Unfortunately, these figures were to experience a 10% drop by one year. This decline in enrollment noted at the one year level may be partially explained by the facts that some of the girls graduated and left school and that the one year 'informal' panel was made up of different mothers from the two and six month groups, and by the very small number of mothers in the 'formal' group who were tested at the 12 month interval when data collection was terminated. More importantly, however, and much less speculative in nature, the City of Baltimore introduced a freeze on family and group day care center services at the time of this study. In effect no additional children were placed in day care unless the mothers were adjudged to be child abusers or manifested a real potential for such. The fact that more mothers had completed high school by the time their children were one year old is indicated by mean grade completion figures of 10.44 for the 'informal,' and 10.38 for the 'formal' panel at the one year interval.

Only a few of these mothers had translated their educational efforts to the employment market. Indeed, their skills are so minimal that the counseling emphasis of the program is to return to school or stay in school, whichever is applicable. It is urged that maximum educational achievement is the primary vehicle for these girls and their infants to escape the economic treadmill that would insure a life of poverty and ignorance.

Turning to the educational achievements of the father of the baby (Table 4), it is noted that a discrepancy in favor of the father does exist, but not as extensive as would be expected in light of the age distinctions.

Interestingly, the baseline population, which had the smallest difference in age between the respective parents, showed a greater diversity in education. The fathers had a mean grade completion of 11.09, or a difference of 1.2 years more than the mothers. The modal category for these fathers was that of high school graduates with one of the fathers having completed two years of college.

The 'informal' and 'formal' educational group mothers reported that the average educational level of the fathers of their babies fell into the middle of their high school sophomore year. Specifically, the 'informal' sample reported the fathers having a 1.4 year advantage and the 'formal' a 0.9 year superiority. By the end of the one year study interval these differences had been reduced to one year and 0.2 year respectively. These data would seem to suggest the program's effectiveness in encouraging the mothers to maximize their educational achievement within both groups, but especially the 'formal' panel. That is, they have indeed returned to or remained in school, while the educational attainment of the fathers of the babies remained constant.

Given the absence of additional educational attainment, it might be anticipated that these fathers were engaged in some form of employment. For the most part, this expectation has been realized. Three-fourths of the baseline fathers were employed; this contrasts

TABLE 4
Highest Grade Completed by Fathers of Babies

GRADES	BASELINE GROUP		INFORMAL EDUCATIONAL GROUP						FORMAL EDUCATIONAL GROUP			
	N	%	2 mos. N %		6 mos. N %		1 year N %		2 mos. N %		1 year N %	
7th			1	4.4								
8th			1	4.4					7	12.7		
9th	3	9.1	3	13.0	2	22.2	1	14.3	6	10.9	3	25.0
10th	6	18.2	5	21.7					9	16.4	3	25.0
11th	11	33.3	8	34.8	2	22.2	1	14.3	14	25.5	2	16.7
12th	12	36.4	5	21.7	5	55.6	5	71.4	19	34.5	4	33.3
Post Secondary	1	3.0										
Totals:	33	100.0	23	100.0	9	100.0	7	100.0	55	100.0	12	100.0

with half of the 'informal' fathers at two months and only 45% at one year. Among the fathers in the 'formal' panel, 57% at 2 months and 70% at 12 months were employed.

As previously noted, the 'baseline' population does not really offer a valid comparison. The young parents lived in a slightly more favorable area and their superior educational achievement indicates a high degree of association with a working status. The 'formal' group has a greater percentage of fathers working at two months than either of the 'informal' panels, and that percentage increased with time. Thus, it would seem that some of the emphasis upon responsibility, presented to the mothers, may be communicated to the fathers of the babies.

DATA: PARENTING AND OTHER INDICES

Child Development

The index designed to assess the level of knowledge of child development consisted of a total of 29 questions, for a range of possible scores of 29-87. The intervals denoting most, moderate, and least knowledgeable are 29-46, 47-60, and 61-87 respectively (Table 5).

Very few respondents from any panel fell into the least knowledgeable category. The 'baseline' group exceeded all others, however, with 13.7% scoring poorly. It must be noted, that adolescents in the Hopkins prenatal program are exposed to limited information on early child development. While the 'informal' panels for six months and one year were more knowledgeable than those mothers with two month

TABLE 5
Young Mothers Knowledge of Child Development

	<u>BASELINE GROUP</u>		<u>INFORMAL EDUCATIONAL GROUP</u>						<u>FORMAL EDUCATIONAL GROUP</u>					
			<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>		<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Most Knowledgeable	10	22.7	10	34.5	5	50.0	4	44.4	20	32.3	38	61.3	12	80.0
Moderately	28	63.7	18	62.1	4	40.0	5	55.6	40	64.5	24	38.7	3	20.0
Least	6	13.6	1	3.4	1	10.0			2	3.2				
Total	44	100.0	29	100.0	10	100.0	9	100.0	62	100.0	62	100.0	15	100.0

$\bar{X}$: 50.54 48.9 49.0 46.67 49.06 44.19 41.33

Standard Deviation: 5.4 5.26 5.85 3.50 5.25 6.08 5.86

infants, the six month measurement resulted in the most knowledgeable panel (50%) for those mothers exposed to the 'informal' educational intervention.

The 'formal' panel offers clear evidence for the efficacy of the program. While only 32.3% were well informed at the two month interval, this percentage grew to 61.3 at six months, and to a gratifying 80% when their infants were one year of age.

Indeed, and although speculative, it is herein argued that one important reason the mother's one year scores were not even higher for both the 'formal' and 'informal' panels is that of the precocity of their infant's motor skills. Several questions addressed the areas of walking, use of feeding utensils, and manual dexterity. A large percentage of these infants had abilities that were advanced, exceeding the parameters of 'normal' expectations. For example, many began walking at 10 months of age rather than at 1 year; and they were able to manipulate a cup during feeding at 1 year, as opposed to the more typical 15 months. As a consequence, mothers observe what their children did, and erroneously assumed all normal children are equally capable. While not measured specifically for this evaluation, these observations do provide additional evidence for the efficacy of this clinical intervention effort.

Community Resources

This index tapped the mother's knowledge of such things as awareness of eligibility for the WIC program, legal responsibility

for care of her infant, eligibility for medical assistance, and opportunities for the mother's continued education. The index range is 11-33 with 11-15 indicating most knowledgeable, 16-23 moderately well informed, and 24-33 indicating a poor knowledge base.

As with child development, few mothers were without at least moderate information. The two month 'informal' panel was the least informed with about 10% falling into the bottom category. By one year of age, approximately half of the mothers in the 'formal' and 'informal' panels were well informed, with the 'informal' group enjoying a slight edge (Table 6).

The difficulty of direct comparability is underlined for this dimension, however. While the 'formal' panel, which was followed throughout the first year, reflected an increasing linear progression of mothers who are most knowledgeable: 6.5% at 2 months, 24.2% at 6 months, and 46.7% at 1 year, the varying membership of the 'informal' panels followed the inconsistent pattern of 13.8% at 2 months, zero at 6 months, and 55.6% at 1 year.

Interestingly, the baseline mothers were predominantly moderate in their knowledge of community resources with only 2.3% registering a score in the most knowledgeable range and 6.8% in the least well informed category.

Although this dimension does not offer the unambiguous evidence of success for the program shown by the area of child development, the consistent increase in the proportion of mothers who scored well on this dimension is encouraging. The wide range of resources

TABLE 6
Mother's Knowledge of Community Resources

	<u>BASELINE GROUP</u>		<u>INFORMAL EDUCATIONAL GROUP</u>						<u>FORMAL EDUCATIONAL GROUP</u>					
	N	%	<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>		<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>	
			N	%	N	%	N	%	N	%	N	%	N	%
Most Knowledgeable	1	2.3	4	13.8			5	55.6	4	6.5	15	24.2	7	46.7
Moderately	40	90.9	22	75.9	10	100.0	4	44.4	55	88.7	45	72.6	8	53.3
Least	3	6.8	3	10.3					3	4.8	2	3.2		
Totals:	44	100.0	29	100.0	10	100.0	9	100.0	62	100.0	62	100.0	15	100.0

$\bar{X}$: 19.89

18.97

18.70

15.56

19.18

17.77

15.47

Standard Deviation: 2.70

3.13

2.00

2.35

2.57

2.84

2.10

available, the administrative requirements for attainment, and the processing of this information to the degree to which one feels confident of negotiating for these services represents an extremely complex learning process. It is not unreasonable, therefore, to expect a time frame greater than one year to be necessary for the integration of all of these factors.

Family Planning

Questions tapping this dimension were oriented toward knowledge of contraceptive techniques, where to obtain contraceptives, and knowledge of appropriate usage. A range of scores from 10-30 resulted. The trichotomized intervals were 10-15, 16-22, and 23-30 for the most, moderate, and least knowledgeable categories. Not surprisingly, virtually none of the mothers were without at least a moderate degree of knowledge. Again, the pattern for the mothers exposed to the 'formal' educational intervention reflected a consistently improving informational base (Table 7). By the one year measurement, more than half (53.3%) attained scores in the most knowledgeable interval. This is contrasted to 11.1% of the 'informal' mothers and 25% of the 'baseline' mothers. Because the 'baseline' mothers were quite eclectic, and the 'informal' mothers were not provided systematic instruction, even though they, like those in the 'formal' group, received family planning services. The evidence is supportive of the program's effectiveness.

Although the supportive data for community resources and family planning are not as dramatic as those for child development,

TABLE 7

Young Mother's Knowledge of Family Planning

	<u>BASELINE GROUP</u>		<u>INFORMAL EDUCATIONAL GROUP</u>						<u>FORMAL EDUCATIONAL GROUP</u>					
	N	%	<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>		<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Most Knowledgeable	11	25.0	4	13.8	1	10.0	1	11.1	19	30.7	23	37.1	8	53.3
Moderately	32	72.7	25	86.2	9	90.0	8	88.9	40	64.5	38	61.3	7	46.7
Least	1	2.3							3	4.8	1	1.6		
Totals:	44	100.0	29	100.0	10	100.0	9	100.0	62	100.0	62	100.0	15	100.0

 $\bar{X}$: 17.50

18.34

17.30

17.33

17.71

15.84

14.87

Standard Deviation: 2.54

2.52

2.50

2.60

3.29

3.10

2.56

they consistently point to an improved knowledge base for those mothers in the 'formal' educational program. The linearity and consistency, then, support, in an accumulative fashion, the power of this educational effort.

An additional note might be made. Although unfortunate, many, if not all, educators at all levels of instruction, sometimes falsely assume knowledge on behalf of their students. In that all school systems have some form of sex education within their curriculum, it might well be reasoned that family planning is addressed in these courses of study. Further, these mothers had been exposed to family planning education during their prenatal care. However, it appears that family planning materials are not absorbed and retained well during pregnancy, the only time during a woman's fecund period when birth control is not a relevant issue. Therefore, family planning might logically be an area that received a lesser coverage during the 'informal' phase of this program, under the assumption that such information was redundant. Clearly, this aspect was included in the 'formal' panel, as the increasing knowledge base indicates.

It should also be noted that, from a clinical perspective, continued exposure to contraceptive information is necessary before one really understands how it works, and is thereby able to benefit from its use. A more important issue not covered within the contraceptive knowledge inventory is that of the social dimensions of sexual activity. This include the areas of value clarification, decision making, and general

management of the relationship between the mother and her husband/boyfriend. It is a composite of all of these dimensions which determines outcomes.

Safety

Like family planning, this dimension included ten questions resulting in a range of scores from 10-30. A score falling between 10 and 15 indicated high knowledge, 16-22 moderate, and 23-30 poor knowledge.

Items included safety of toys and environment, what to do in cases of poisoning or fire and whether or not to leave a baby alone or with babysitter. Although the study mothers were reasonably well informed generally, both the 'formal' and 'informal' panels registered improvement during the year in which the measurements were taken.

The previously observed pattern of linearity for the 'formal' panel was repeated with the most knowledgeable interval being reached by 61.3%, 67.7%, and 80% respectively at 2 months, 6 months, and one year of the infants' life (Table 8). Similarly, the inconsistency previously noted for the 'informal' subsamples was again observed. Although none of the 'informal' panel mothers at six months achieved scores at the highest level, 44.8% at 2 months and 55.6% at 12 months registered such response totals. It should be noted that the concern with safety is an everchanging one. As the child grows and the world to which he has access expands, more potentially dangerous

TABLE 8
Young Mother's Knowledge of Safety

	<u>BASELINE GROUP</u>		<u>INFORMAL EDUCATIONAL GROUP</u>						<u>FORMAL EDUCATIONAL GROUP</u>					
	N	%	<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>		<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>	
			N	%	N	%	N	%	N	%	N	%	N	%
Most Knowledgeable	27	61.4	13	44.8			5	55.6	38	61.3	42	67.7	12	80.0
Moderately	15	34.1	16	55.2	10	100.0	4	44.4	23	37.1	20	32.3	3	20.0
Least	2	4.6							1	1.6				
Totals:	44	100.1	29	100.0	10	100.0	9	100.0	62	100.0	62	100.0	15	100.0

$\bar{X}$: 14.96

15.62

14.00

15.33

14.94

13.79

12.13

Standard Deviation: 3.12

2.40

2.54

2.69

2.60

2.47

2.17

elements become available to him. Therefore, it is anticipated that these mothers will become increasingly aware of these growing complexities and knowledgeable of what to do about their children's contact with such.

Perhaps an additional speculative note, relevant to the six month 'informal' panel would be in order. Although the research design did not call for any control condition with regard to maternal intelligence, a pattern began to emerge which suggests a lesser level of ability for the mothers comprising the 'informal' 6 month panel. They have scored at a lower level than the mothers assessed at 2 months or 1 year interval on three of the four dimensions thus far reported. This projection is supported by noting that despite the enigmas with the 'baseline' sample they have also performed at a higher level on each of those dimensions than the mothers of the 'informal' 6 month assessment. Although complete psychological and intelligence testing information is not available for the subsamples of mothers, a range of intellectual competence was discernable in each group, however, 4 of the mothers in this 'informal' group are known to be retarded and two have borderline intellectual functioning. This lower level of intellectual ability for a few of these mothers thereby influences the summary statistics for the entire panel of respondents. If this thesis holds any degree of accuracy, it can be argued that the program is effective in that these mothers are achieving at least a moderate amount of information to aid in the socialization of their children.

Adolescent Development

Adolescence is a period of confusion and ambiguity. Sociologists have often seen adolescence as a period of physical maturity and social immaturity (3). The physical capacities of adolescence, in combination with social pressure, direct the individual to seek independence. The seeking of independence, however, is often thwarted as the adolescent continues in many of the roles practiced as a younger child. The resulting discrepancy between physical and social maturity serves as a major source of frustration. Many adolescents respond to this frustration by electing to participate in sexual activity. Indeed, Zelnik, Kim and Kantner (1979) (4) indicate that more and more adolescents are becoming sexually active at earlier and earlier ages. Many become pregnant and some welcome the pregnancy as a sign of having reached adulthood. However, parenthood during adolescence, does not signal an end to the ambiguity of this period. Indeed, in many ways, it seems to intensify the problems. The adolescent parent must still assimilate the cultural necessities for survival, but must now do so in combination with fulfilling the parental role. Unfortunately, many who find themselves locked into this role constellation, do not perform either to their capacity.

The index to assess adolescent development for this study contains items which are reflective of an effort to combine the mother and child in the mother's perception and/or knowledge of adolescent development. That is, this measurement is an effort to go beyond adolescent development per se. To illustrate, questions deal with:

(1) managing sexual demands of boys; (2) the fact that it is O.K. to think of oneself occasionally instead of the baby. This question was missed by the vast majority of members of all panels, indicating a high degree of parental conscientiousness; (3) wishing they were someone else. (Fewer did as their time within the program increased).

The range for this index was 10-30 with the high, moderate, and low intervals of knowledge being 10-15, 16-22 and 23-30. Using these cut off points, the mothers exposed to the 'formal' program experienced an increasing level of knowledge through the year. Although the 'informal' panels followed the inconsistent pattern seen with prior areas, with those at six months scoring at a slightly higher level (i.e., less adequately) than those at one year, exposure to the program, even at the 'informal' level was clearly beneficial to the study population (Table 9).

Child Care

The final index assessed in this evaluational effort dealt with such issues as the shape of a baby's head at birth, age of change from formula to milk, what to do for diaper rash, other minor illness, normal rectal temperature for an infant, and vitamin supplements. The possible range was 19-57 with the subdivisions for most, moderate and least knowledgeable reflected by scores of 19-28, 29-43 and 44-57.

The scores for this dimension were disappointingly low. Although the linear pattern is observed for those mothers enrolled in the 'formal'

TABLE 9

Young Mother's Knowledge of Adolescent Development

	<u>BASELINE GROUP</u>		<u>INFORMAL EDUCATIONAL GROUP</u>						<u>FORMAL EDUCATIONAL GROUP</u>					
			<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>		<u>2 mos.</u>		<u>6 mos.</u>		<u>1 year</u>	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Most Knowledgeable	30	68.2	15	51.7	8	80.0	7	77.8	41	66.1	44	71.0	11	73.3
Moderately	11	25.0	14	48.3	1	10.0	2	22.2	21	33.9	17	27.4	4	26.7
Least	3	6.8			1	10.0					1	1.6		
Totals:	44	100.0	29	100.0	10	100.0	9	100.0	62	100.0	62	100.0	15	100.0

$\bar{X}$: 14.59 15.45 15.80 13.67 14.68 13.89 13.67

Standard Deviation: 2.16 2.16 3.74 1.87 2.41 2.74 2.84

program, the deviations are quite small, and the percentage of those achieving scores in the highest range at one year is only slightly in excess of one-fourth (Table 10). Encouragement, however, can be derived from the virtual absence of mothers scoring in the least knowledgeable group after 2 months.

A possible explanation for this poor performance hinges upon the factual and detailed nature of the information required for correct responses. Whereas the other dimensions could be adequately tapped by inquiring about general ideas, principles, etc., the child care questions asked for more precise responses than was the case in the other areas examined. It is argued that these mothers possessed a general base of information as noted by the high percentage of moderate scores, but lacked the greater specificity required by some of the items. It is possible that our educational efforts in this area can be improved now that we are alerted to the problems.

Summary

In general, the data for all six indices reflected an increased knowledge base for those mothers who were participating in the 'formal' educational program. In all cases, a linear progression was observed from the initial measurement at 2 months, to the 6 month assessment, then to the 1 year evaluation. There are no exceptions to this pattern. It can be concluded that the program has been quite effective for those mothers followed throughout.

TABLE 10
Mother's Knowledge of Child Care

	BASELINE GROUP		INFORMAL EDUCATIONAL GROUP						FORMAL EDUCATIONAL GROUP					
	N	%	2 mos.		6 mos.		1 year		2 mos.		6 mos.		1 year	
			N	%	N	%	N	%	N	%	N	%	N	%
Most Knowledgeable	3	6.8	3	10.3			1	11.1	5	8.1	16	25.8	4	26.7
	39	88.6	26	89.7	10	100.0	8	88.9	56	90.3	46	74.2	11	73.3
Least	2	4.6							1	1.6				
Totals:	44	100.0	29	100.0	10	100.0	9	100.0	62	100.0	62	100.0	15	100.0

$\bar{X}$: 35.11 34.55 33.20 32.56 34.82 30.74 29.13

Standard Deviation: 4.17 4.56 3.05 5.36 4.13 4.84 4.52

Supportive evidence was also noted for the 'informal' segment of the program as well. By contrasting the knowledge assessments taken at 2 months with those taken at 1 year, consistent gains were manifest. The six month 'informal' panel poses an interpretational problem, however. As noted earlier, these mothers may, as an aggregate, be less able than those who were included in the two month and one year panels. The reader is reminded that the panels were not selected by probability sampling, and ethical considerations prohibited exclusions of everyone who desired participation. However, further inquiry would be necessary before this suggestion can be accepted as an adequate explanation.

DATA: CONTRAST OF PERCEIVED KNOWLEDGE, WHAT ONE KNOWS
AND WHAT ONE WANTS TO KNOW

The second major component of the evaluational effort was generated by a comparison of responses to identical questions administered prior to and following completion of the 'knowledge questions' discussed above. This additional inquiry was administered to all of the mothers of the study. This included two assessments of the 'formal' group mothers, one at each of the two month and one year intervals. The 'informal' panels at 2, 6 and 12 months, and the 'baseline' Sinai population were tested similarly. In the first instance the young mothers were asked how much they thought they knew about a variety of child and adolescent developmental areas. Following the actual testing of knowledge, the respondents were told

the correct responses and then asked how much they would like to know about the same topics. That is, did exposure to a situation which immediately challenged their perceived knowledge serve to activate or stimulate a desire to improve upon this knowledge base, either to the level they had previously thought they were on, or to a more advanced level of knowledge? In general, the mothers did seek additional information, and the following discussion addresses the areas in which this desire was felt.

The pre-assessments were made in terms of the mother's selection of alternative responses to the question: How much do you know about (14 subject areas)? The choices were nothing, only a little, quite a bit, and most everything. Identical response alternatives were offered for the same areas of concern after the completion of the knowledge testing stimulus, and for the question: How much more would you like to know?

The pre-stimulus responses were then subtracted from the post-test answers. Where the alternative selection in the post-test indicated a desire to learn more than they initially thought they knew, a positive discrepancy was noted; a negative score suggested an attitude of apathy, and where the response selection was the same for both pre- and post-test measurements a numerical notation of zero was recorded. These procedures resulted in a range of potential scores of -3 to +3 representing the seven possible ordinal scale points generated by combining the pre- and post-test alternatives. In light of our desire to obtain only a general reading of discrepancy, and the small sub-

sample sizes, the decision was made to collapse all of the positive scores (+1, +2, +3) into one category of those wishing to know more than they thought they knew; and to collapse all of the negative scores (-1, -2, -3) into a category of apathetic mothers. Finally, those responding in an identical way to both assessment were felt to want to know at least as much as they had previously thought they knew. This last category is somewhat ambiguous. If a mother indicated that she felt she already knew quite a bit, and subsequently selected the same response to the question asking her how much more she would like to know, it would be reasonable to conclude that she did indeed desire more information than she felt she possessed after exposure to the testing stimulus. That is, she would like to at least be at the level she had perceived prior to exposure to the knowledge test items. As this represents a logical interpretation of the neutral response pattern, the quantitative responses which resulted in positive or neutral quantitative assessments are treated as desiring more information.

As the discussion below will indicate, the combination of these two categories exceeds more than half of the program mothers by a substantial margin in all fourteen areas, for the mothers at the two month interval assessment, or the first time the mothers visit the clinic. The open acknowledgement that they would like to learn more is reflective of a quick and easy rapport established by the Center staff, and a desire and commitment on the mother's part to maximize her knowledge about herself and her baby. This is viewed

as a healthy sign for the growth and development of both mother and child.

A comparison of the proportion of mothers who elect to know more when their infants are two months and one year of age will offer an additional opportunity for an evaluational assessment of the educational component of the program. It is hypothesized that the proportion of girls desiring additional knowledge at the one year measurement should be significantly less than those expressing such a desire at two months. Conversely, it could be that mothers of 1 year old infants will have reached a level of awareness of how much there is to know and therefore their desire to know more will have reached a more dramatic level. These data are presented in Table 11.

The initial areas measured dealt with how babies grow and develop. Half of the mothers composing the 'formal' panel wanted to know more than they initially thought they knew, while an additional 37% wanted to know at least as much. These percentages were reduced to 40% and 33% respectively at one year. The combined percentages of the 'informal' groups were 86% at two months, 90% at six months, and 89% at one year. That is, there was no reduction manifest in the scores registered by these mothers with different aged children. Eighty-four percent of heterogenous 'baseline' population reflected a desire to know more. Clearly, the vast majority of all subsamples sought additional information, while the only reduction was evidenced by the 'formal' group. Although a smaller proportion, and a substantial reduction, the percentage is still quite high at one year (73%). This may well

TABLE 11

Mother's Perceived Knowledge and that Desired after Educational Session

DIMENSIONS ASSESSED	BASELINE GROUP						2 MONTHS INFORMAL						6 MONTHS INFORMAL					
	More (+)		Same		Less (+)		More (+)		Same		Less (+)		More (+)		Same		Less (-)	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
How babies grow and develop	27	61.4	10	22.7	7	15.9	19	65.5	6	20.7	4	13.8	4	40.0	5	50.0	1	10.0
Babies needs and feelings	22	50.0	13	29.5	9	20.4	11	37.9	11	37.9	7	24.1	2	20.0	3	30.0	5	50.0
How to be a good mother/parent	17	38.6	14	31.8	13	29.5	12	41.4	6	20.7	11	37.9	2	20.0	3	30.0	5	50.0
Safety awareness	20	45.5	18	40.9	6	13.6	12	41.4	8	27.6	9	31.0	3	30.0	4	40.0	3	30.0
How adolescents grow and develop	18	40.9	16	36.4	10	22.7	14	48.3	8	27.6	6	20.7	4	40.0	3	30.0	3	30.0
Adolescent needs and feelings	16	36.4	15	34.1	13	29.5	14	48.3	7	24.1	8	27.6	3	30.0	3	30.0	4	40.0
Sex	9	20.5	11	25.0	24	54.5	7	24.1	6	20.7	16	55.2	3	30.0	3	30.0	4	40.0
How to deal with boyfriend/husband	10	22.7	12	27.3	22	50.0	7	24.1	12	41.4	10	34.5	4	40.0	4	40.0	2	20.0
Contraceptive methods	13	29.5	12	27.3	19	43.2	13	44.8	3	10.3	13	44.8	4	40.0	2	20.0	4	40.0
How to handle contraceptive practices	20	45.5	12	27.3	12	27.3	16	55.2	6	20.7	7	24.1	6	60.0	3	30.0	1	10.0
How to plan a family	22	50.0	10	22.7	12	27.3	11	37.9	9	31.0	9	31.0	5	50.0	3	30.0	2	20.0
Making a daily schedule for self	10	22.7	15	34.1	19	43.2	12	41.4	4	13.8	13	44.8	2	20.0	4	40.0	4	40.0
Making a daily schedule for baby	17	38.6	9	20.5	18	40.9	11	37.9	5	17.2	13	44.8	2	20.0	4	40.0	4	40.0
Housekeeping, like cooking/cleaning, decorating, etc.	6	13.6	8	18.2	30	68.2	4	13.8	11	37.9	14	48.3	2	20.0	4	40.0	4	40.0

TABLE 11 (cont'd)

DIMENSIONS ASSESSED	1 YEAR INFORMAL						2 MONTHS FORMAL						1 YEAR FORMAL					
	More (+)		Same		Less (-)		More (+)		Same		Less (-)		More (+)		Same		Less (-)	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
How babies grow and develop	6	66.7	2	22.2	1	11.1	31	50.0	23	37.1	8	12.9	6	40.0	5	33.3	4	26.6
Babies needs and feelings	4	44.4	3	33.3	2	22.2	30	48.4	21	33.9	11	17.7	6	40.0	5	33.3	4	26.6
How to be a good mother/parent	2	22.2	5	55.6	2	22.2	19	30.6	26	41.9	17	27.4	4	26.7	7	46.7	4	26.6
Safety awareness	3	33.3	5	55.6	1	11.1	27	43.5	20	32.3	15	24.2	6	40.0	5	33.3	4	26.6
How adolescents grow and develop	8	88.9	1	11.1	-	--	36	58.1	13	21.0	13	21.0	9	60.0	5	33.3	1	6.7
Adolescent needs and feelings	7	77.8	1	11.1	1	11.1	31	50.0	16	25.8	15	24.2	6	40.0	6	40.0	3	20.0
Sex	3	33.3	4	44.4	2	22.2	13	21.0	21	33.9	28	45.2	4	26.7	8	53.3	3	20.0
How to deal with boyfriend/husband	3	33.3	1	11.1	5	55.6	11	17.7	19	30.6	32	51.6	4	26.7	5	33.3	6	40.0
Contraceptive methods	5	55.6	1	11.1	3	33.3	27	43.5	16	25.8	19	30.6	5	33.3	5	33.3	5	33.3
How to handle contraceptive practices	4	44.4	3	33.3	2	22.2	41	66.1	10	16.1	11	17.7	5	33.3	0	46.7	3	20.0
How to plan a family	5	55.6	3	33.3	1	11.1	34	54.8	15	24.2	13	21.0	6	40.0	6	40.0	3	20.0
Making a daily schedule for self	4	44.4	2	22.2	3	33.3	20	32.3	18	29.0	24	38.7	5	33.3	5	33.3	5	33.3
Making a daily schedule for baby	5	55.6	1	11.1	3	33.3	19	30.6	22	35.5	21	33.9	4	26.7	7	46.7	4	26.6
Housekeeping, like cooking/cleaning, decorating, etc.	2	22.2	5	55.6	2	22.2	5	8.1	23	37.1	34	54.8	3	20.0	6	40.0	6	40.0

indicate the enormity of what there is to learn in this area, and a continuity of the recognition of its importance.

The second area is closely related to the first, dealing with babies needs and feelings. The same pattern is observed, i.e., a reduction from 82% to 73% from the 2 month and one year assessment for the 'formal' group. The 'informal' and 'baseline' segments ranged from 75% to 79% with the exception of the six month 'informal' panel. Only half of these mothers indicated a desire for an increased knowledge base. A tentative hypothesis of lesser ability for this panel was advanced in the prior section. Responses for this item would seem to increase the credibility of that suggestion.

Thirdly, the mothers were queried about how to be a good mother and parent. In that this dimension is a long term concern, little or no reduction was expected. That is new questions and interests in this area would seem to be continuously suggested. Indeed, the data verifies this expectation. The two month percentage seeking greater knowledge for the 'formal' panel is 72% while the 12 month interval saw 73% of the mothers seeking additional information. Similar proportions of the 'informal' panels and baseline sample were observed.

A second, and every present concern of mothers is that of safety. Again, a minimal reduction in the desire to know more was expected. This prediction was verified with approximately three-fourths of the respondents registering such a desire at both assessment periods. Similar levels were viewed for the two month and six

month 'informal' panels. This percentage was 86% and 89% for the 'baseline' and one year 'informal' subsamples.

Although these statistics seem to suggest some reduction in anxiety experienced by those mothers formally enrolled, the much higher incidence of those not so enrolled can be interpreted not only as a sign of anxiety, but as an important indicator of care and concern for the safety and welfare of their children. Repeatedly, the data tapping a wide variety of dimensions has pointed to the intensity of the desire of these adolescent mothers to be a good and competent parent. Whatever the reasons for the decision to have a child, these data are clear in indicating that the responsibility of parenthood is not taken lightly.

The next two subject areas deal with the adolescent per se. Initially, the mothers were asked about adolescent growth and development in general, and subsequently the needs and feelings of adolescents. In both of these instances, the hypothesis was an expected increase in the proportion of those mothers who would want to increase their knowledge base. If the program was successful in effecting an index of comfort for the participants, an increased willingness to admit the desire for more knowledge and the legitimacy of thinking of themselves on occasion, as opposed to their infants, should be manifest.

The response pattern to both of these items would suggest that these hypotheses were correct. Indeed the same trend is observed among the mothers enrolled in the 'formal' panel, again suggesting the successful establishment of friendly rapport with the Center staff.

The subject of sex was the next area of inquiry, and the mothers of the 'formal' and 'informal' panels again indicated an increasing desire to know more from the two month assessment to the one year interval. This is in the face of definitive evidence that the mothers were indeed more knowledgeable, at least in some areas. It will be recalled that a dramatically increased proportion of mothers in the 'formal' panel obtained substantially higher scores for family planning at one year as contrasted with two months.

Clearly, the contents of the educational modules which deal with the area of sexuality are considerably more involved than methods of family planning. However, these data would seem to suggest that increased knowledge leads to a desire for more information. The comments which have been made previously concerning reduction of anxiety and establishment of rapport are also applicable.

Specifically relevant to the family planning aspect of the sexual dimension, the mothers were asked about their perceived and desired levels of knowledge concerning contraceptive methods. In this area, the 'formal' panel mothers experienced a reduction, during the interval, of wanting to know more, as opposed to wanting to know at least as much.

It might be argued, then, that family planning and contraceptive techniques were an initial and major concern, but as the knowledge base and experience with this area increased, the mothers began to direct their attention to other issues. One such issue was how to handle or relate to the husband or boyfriend. Quite the reverse was observed in this area. The proportion of mothers enrolled in the

'formal' program seeking at least as much or an increased volume of knowledge increased from 26.7% to 60%, over the period. The 'informal' panels for two months and one year reflected a similar increase in desire for more knowledge, although the six month assessment again altered the linear progression noted for the 'formal' panel.

It can be hypothesized, then, that the mothers enrolled in the 'formal' panel, and the majority in the 'informal' subsamples felt increasingly comfortable with the technical dimension of their sexual knowledge, i.e., contraceptive methods. As this knowledge index increased, the more subtle and complex concerns in the psycho-social dimensions became more pressing. The most important area of those concerns seems to be that of management of their husbands or boyfriends.*

These issues were addressed in a general format by the educational staff. Although data is not available for measuring the effectiveness of these exposures per se, the case by case reading of records would suggest a considerable degree of success.

The interpretation of contraceptive knowledge reported above is reinforced by the response patterns to the additional items of how to handle contraceptive practices, and how to plan a family. Both inquiries

*It is emphasized that the nature of adolescence is not directed toward nor conducive to long lasting heterosexual relationships. It is, instead, a time when one is establishing a heterosexual identity, and is experimenting with relationships. The advent of parenthood changes the way "things ought to be" and makes a boy, who perhaps would have been a temporary partner, a permanent part of the girl's life. Couple this with great mood swings and impulsive behavior which are also characteristics of adolescence, and the difficulty of adjustment for both mother and father is apparent.

resulted in a substantial reduction in the proportion of mothers in the 'formal' sample seeking additional information at the one year measurement as contrasted to the two month assessment. By the conclusion of the first year only one-third of the mothers sought more information on handling contraceptive practices, while just 40% responded in this manner to family planning.

By contrast, the 'informal' panels reflected an increasing linear progression of mothers wanting to know more about how to plan a family, but a smaller percentage seeking more information concerning contraceptive practices. However, the six month panel again registered responses which were inconsistent with those of other mothers and the age of their infants.

The next two areas deal with scheduling (i.e., arranging the day's activities) for the adolescent mother and her infant. The area of scheduling for the mother is obviously concerned with the issue of time efficiency. Scheduling, in general, does serve to increase the number of activities one engages in, as well as improving the efficiency with which one performs these roles. However, this type of concern may well be viewed as secondary in importance by these mothers. That is, the connection between scheduling and efficiency may be understood from an intellectual perspective, but not practiced. The phrase "I don't have time to sit down and make out a schedule" is frequently heard. A discrepancy between knowledge and practice may be observed, then. The mood swings and impulsive behavior noted above probably limit all but the exceptional teenager to the

crudest of schedules, i.e., eat, go to school, and sleep. The thought of a more severe schedule may be threatening to a person with as little self discipline as the average teenager. It is much easier to control the extension of yourself, i.e., the baby. Therefore, it is expected that more importance would be afforded a schedule for the infants. As will be noted below, this expectation was realized.

It was anticipated, therefore, that little change would be registered by these young mothers on this dimension. This projection was realized in terms of a schedule for themselves, but the importance of a schedule for the baby was recognized, and a dramatic increase in the proportion of mothers seeking more information was noted for this activity. Scheduling for the baby was perceived, then, not only in terms of efficiency, but in terms of good baby care as well. The pattern of consistency for self and significant change for the baby was also observed for the 'informal' panels with the exception of the mothers with six month old infants.

Indeed, these proportional statistics reflect quite favorably to the recorded index scores for child care reported above. Although a linear progression had been noted for that area, the proportion falling in the most knowledgeable area was quite small. It was argued that this was possibly a function of the more precise nature of the information used in testing the mothers. Although scheduling may be quite precise, the inquiry was not directed to the content, but to the advisability of utilizing this procedure. This response pattern, then, is not seen as polemical to the child care index, and is further

evidence of the seriousness with which these young women perceive the role of parenting.

The final area of inquiry deals with the domestic tasks of house-keeping, cleaning, cooking, etc. The data point to an increase of mothers in both categories seeking more knowledge, or at least as much as they thought they knew, for the 'formal' and 'informal' subsamples. Although the percentages are not large, they are linear in terms of the chronological age of the infant, with one-fifth of both the 'formal' and 'informal' group mothers registering a desire to learn more.

As these mothers are adolescents, and a majority still live within their family or orientation, concern with these domestic skills would be expected to be minimal. However, following exposure to a variety of considerations from the program, after a year of motherhood, and being more mature themselves, it is not surprising to see an increase in interest in the home environment that most aspire to as an eventual goal.

CONCLUSION

A plethora of evidence indicates that this program is serving the population of adolescent mothers in an effective manner. The young mothers have required a stronger information base. Much of the arrogance that was so visible upon registration which may have served as a mask for fear, anxiety and defensiveness against criticism of their parental status, has been dissipated and replaced

with a strong desire to be as good a parent as possible and with increased self confidence that this goal can be achieved.

These conclusions are supported by observations from the staff that the mothers eagerly attend the group sessions, and participate actively in the discussions. They also call the Center with questions regarding the areas discussed, and many stop by to say hello or share good news.

In addition to the quantitative evidence provided by the indices which has been presented in this report, these young mothers are returning to school at an impressive rate (85%), and while almost all remain sexually active, the rate of repeated pregnancy is impressively low; 7.5% in 12 months, and 21% in 24 months compared with a national figure of 25% in 12 months.*

*Papers presented at the Conference on Adolescent Pregnancy held at Johns Hopkins, October, 1979.

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THE JOHNS HOPKINS UNIVERSITY
ADOLESCENT PARENTING QUESTIONNAIRE

Name: _____

Date of Birth: Month __, Day __, Year, __

Today's Date: Month __, Day __, Year, __

Age: __

Place of Interview: _____

Number in Group: _____

Name of Interviewer: _____

Baby's Date of Birth: Month __, Day __, Year, __

Baby's Age: _____

Developed by

The Johns Hopkins Center for Teen-Aged Mothers and Their Infants

405 N. Caroline Street
Baltimore, Maryland 21231

PLEASE COMPLETE THE FOLLOWING QUESTIONS:

1. Are you in school now?

Yes _____

Name of School: _____

Current Grade: _____

No _____

Name of last school attended: _____

What was the last grade you completed in school? _____

Do you plan to go right back to school after the baby is born?

Yes _____

No _____

2. Were you in school before you became pregnant? Yes _____ No _____

3. Are you pregnant now? Yes _____ No _____ If yes, when are you to deliver your baby? Month _____, Year _____

3.a Are you using birth control now? Yes _____ No _____ If yes, what kind? _____

4. Are you working now?

Yes _____

What do you do? _____

How long have you had this job? _____

When do you work? Day _____

Night _____

Weekends _____

How many hours do you work a week? _____

Where do you work? _____

No _____

5. How old is the father of the baby? _____ years

6. Is he in school now? Yes _____ No _____

Current Grade: _____

7. Is he working now? Yes _____ No _____

What was

highest grade which he completed in school? _____

8. Is this your first baby?

Yes _____

No _____

How many children do you have? _____

How old are your other children?

_____ years or months

_____ years or months

9. Have you ever had a miscarriage? Yes _____ Number _____ No _____

10. Have you ever had an abortion? Yes _____ Number _____ No _____

11. Did you plan to become pregnant with this baby? Yes _____ No _____

12. After finding out that you were pregnant, did you try to get rid of the baby? Yes _____ No _____

13. Did you or the father of the baby use contraceptives at the time when you became pregnant?

Yes _____

No _____

What kind were you using?

Why Not? (Check answer)

_____ a. didn't know about family planning

_____ b. didn't plan to have sex with him

_____ c. wanted to become pregnant

_____ d. Other _____

14. Have you had any of these courses in school?

Name of Courses	Yes	No	No. of Courses
Survival Skills			
Child Development			
Biology			
Family Living			
Other: (list)			
Parent Education (Infant Center)			

15. Have you ever gone to School 457 (1 or 1A)? _____

15. Have you learned about mothering, child development, sex, contraception, family planning, and parenting anywhere else? (CIRCLE ALL THAT APPLY)

Mother Father Friends Relatives Doctor or Nurse Boyfriend
 Grandmother Grandfather Special class held by an organization for teen

16. How much do you know about the following:

	Nothing	Only a little	Quite a bit	Mo Every
How babies grow and develop				
Babies needs and feelings				
How to be a good mother and parent				
Safety awareness				
How adolescents grow and develop				
Adolescent needs and feelings				
Sex				
How to deal with you boyfriend or husband				
Contraceptive Methods				
How to handle contraceptive problems				
How to plan a family				
Making a daily schedule for yourself				
Making a daily schedule for your baby				
Housekeeping, like cooking, cleaning, decorating, etc.				

STOP HERE

DIRECTIONS: To the right of each statement are 3 columns--True, False, Not sure. If you agree with the statement, circle "True". If you think it's wrong, circle "False". If you really don't know or are not sure, circle "Not sure". Please make sure you have answered each question. Do not leave any blank.

1. It's good for a baby to have a lot of people taking care of him so he won't become afraid of strangers.	TRUE	FALSE	NOT SURE
2. A one year old baby uses a spoon well when he eats.	TRUE	FALSE	NOT SURE
3. If a boy really loves a girl, he will not insist on having sex when the girl doesn't want to.	TRUE	FALSE	NOT SURE
4. Most babies can walk alone before they are one year old.	TRUE	FALSE	NOT SURE
5. If a mother is sure that her baby is asleep in his crib, she can safely leave him alone in the house for a few minutes.	TRUE	FALSE	NOT SURE
6. If a mother reads to a young child, he will probably enjoy books as he gets older.	TRUE	FALSE	NOT SURE
7. If a two year old cannot say a few two or three word sentences, his speech is probably delayed.	TRUE	FALSE	NOT SURE
8. It spoils a baby to be hugged and kissed when he falls down.	TRUE	FALSE	NOT SURE
9. A nine month old baby can imitate a lot of what he sees.	TRUE	FALSE	NOT SURE
10. Douching, vaseline, and withdrawal are not good methods of birth control.	TRUE	FALSE	NOT SURE
11. By 15 months a baby can remember things that he sees after they are gone from his sight.	TRUE	FALSE	NOT SURE
12. Two year olds say "No" a lot just to upset their parents.	TRUE	FALSE	NOT SURE
13. If a baby's head is slightly squeezed out of shape during birth, it will soon shape up right.	TRUE	FALSE	NOT SURE
14. The IUD and the diaphragm can be bought at a drug store without a prescription from a doctor.	TRUE	FALSE	NOT SURE
15. A baby on the WIC program stops getting free milk when he is one year old.	TRUE	FALSE	NOT SURE
16. A nine month old can pick up things as small as raisins.	TRUE	FALSE	NOT SURE
17. Most toddlers do not share toys well.	TRUE	FALSE	NOT SURE

18. Occasionally, it is all right to think of yourself first and your baby second.	TRUE	FALSE	NOT SU
19. A girl under 18 years old is not legally responsible for the care of her baby.	TRUE	FALSE	NOT SU
20. A child should not be toilet trained before he is 18 months old.	TRUE	FALSE	NOT SU
21. Infants should be taken off formula and started on regular milk before their first birthday.	TRUE	FALSE	NOT SU
22. To heal some diaper rashes, you need medicine from a doctor.	TRUE	FALSE	NOT SU
23. If a young mother is not dating the father of her baby, she doesn't have to let him see the baby.	TRUE	FALSE	NOT SU
24. An 8 month old should eat fried foods for dinner, like everyone else in the family, as long as it's mashed up.	TRUE	FALSE	NOT SU
25. Most 9 month old babies can sit on the floor by themselves without falling over.	TRUE	FALSE	NOT SU
26. If a parent buys a toy from a large company, she can be certain that it is safe for her baby.	TRUE	FALSE	NOT SU
27. The best way for a girl to put her baby up for adoption is to tell the people in the hospital when she gives birth.	TRUE	FALSE	NOT SU
28. If a 17 year old girl is not on Social Services, her baby can still get free milk and health care.	TRUE	FALSE	NOT SU
29. It's all right for a girl with high blood pressure to take birth control pills.	TRUE	FALSE	NOT SU
30. A baby is about 5 months old before he can easily reach for and touch objects.	TRUE	FALSE	NOT SU
31. One to three month old babies like to look at still objects instead of ones that are moving.	TRUE	FALSE	NOT SU
32. Playing with a baby helps him learn about people.	TRUE	FALSE	NOT SU
33. A girl should wait two hours before washing birth control foam out of herself.	TRUE	FALSE	NOT SU
34. The normal rectal temperature for a baby is 98.6°.	TRUE	FALSE	NOT SU
35. A mother does not need to hold the baby during feeding when the baby can hold the bottle himself.	TRUE	FALSE	NOT SU
36. It's all right for a mother to put the baby's pacifier or bottle in her own mouth.	TRUE	FALSE	NOT SU
37. Even if a girl has been out of school a whole semester, she can still return to her home school.	TRUE	FALSE	NOT SU

38. A one month old infant lying on his stomach can lift his head and look around.	TRUE	FALSE	NOT SURE
39. If trained well, a 7 year old girl can be a good baby-sitter for a couple of hours.	TRUE	FALSE	NOT SURE
40. It is important to keep a house very warm (80° or more) when a baby lives there.	TRUE	FALSE	NOT SURE
41. The only vitamins parents should buy are those with iron added.	TRUE	FALSE	NOT SURE
42. Babies can see and hear when they're first born.	TRUE	FALSE	NOT SURE
43. If a baby is given brand name baby foods, he does not need extra vitamins.	TRUE	FALSE	NOT SURE
44. Once the formula has been prepared, it should always be refrigerated.	TRUE	FALSE	NOT SURE
45. Babies only understand words they are able to say.	TRUE	FALSE	NOT SURE
46. It takes about one month for milk to be delivered after a new mother signs up for the WIC program.	TRUE	FALSE	NOT SURE
47. It's not important for a baby to have a routine for eating or sleeping.	TRUE	FALSE	NOT SURE
48. The best way to keep a boyfriend is to have sex with him.	TRUE	FALSE	NOT SURE
49. It is not safe to use a thin piece of plastic as a water-proof sheet in a baby's crib.	TRUE	FALSE	NOT SURE
50. A 3 to 4 month old baby cries when he goes to the doctor because he remembers the needle.	TRUE	FALSE	NOT SURE
51. A parent must sign a permission slip for her baby to have a shot or an operation.	TRUE	FALSE	NOT SURE
52. Taking a baby outside during the winter months will give him a cold.	TRUE	FALSE	NOT SURE
53. If a 2 year old won't sit on the toilet, his parents should force him.	TRUE	FALSE	NOT SURE
54. Mr. Yuk is a symbol for poison.	TRUE	FALSE	NOT SURE
55. Syphilis is the most common venereal disease.	TRUE	FALSE	NOT SURE
56. Adolescents often worry about themselves and wish they were someone else.	TRUE	FALSE	NOT SURE

DIRECTIONS: Each statement below has 5 possible answers under it. Choose your answer and put the number of that answer in the box. If you really don't know answer or are not sure, write in the number "5".

1. The thermometer should go in the baby's bottom:

- ☐ (1) about half the length of the thermometer
(2) about as much as the pink part of your thumbnail
(3) just the silver tip only
(4) as far as you can
(5) I'm not sure

2. When a young mother feels sad and unhappy, the best way she can take her mind off her worries is to:

- ☐ (1) go to the movies or to a party
(2) have sex with her boyfriend
(3) talk to her parents or someone who will listen
(4) take a small drink to relax herself
(5) I'm not sure

3. Putting hard shoes on a baby before he can walk will:

- ☐ (1) help him to walk earlier
(2) make him a slow walker
(3) be bad for his feet
(4) cripple him
(5) I'm not sure

4. If a baby eats rat poison, sleeping pills, heart medicine, or tobacco, his mother should:

- ☐ (1) not make him vomit and rush him to the hospital
(2) try to make him vomit and rush him to the hospital
(3) wait to see if he's all right before doing anything
(4) give him milk to drink
(5) I'm not sure

5. If a person is on Medical Assistance and needs to get a prescription filled, she only has to:

- ☐ (1) show her card and pay 50¢ to the druggist
(2) tell the druggist her Medical Assistance number
(3) call in her prescription and number to the druggist
(4) have her doctor call the druggist
(5) I'm not sure

6. If the baby's pacifier falls on the floor, the parent should:

- ☐ (1) rinse it off with hot water and give it back to the baby
(2) give it back to the baby if it doesn't look dirty
(3) wash it with hot, soapy water and give it back to the baby
(4) put it in her own mouth and clean it for the baby
(5) I'm not sure

7. If a young mother who is not receiving Social Services needs a babysitter to watch her ten month old baby every day, she should:

- ☐
- (1) have her friends take turns watching the baby
 - (2) go to a nearby day care center to enroll her child
 - (3) go to the Department of Social Services and apply for a family day care mother
 - (4) leave the baby with a neighbor who watches four or five other children
 - (5) I'm not sure

8. To be allowed to take the high school equivalency test (GED), a person must be out of school for at least:

- ☐
- (1) 1 month
 - (2) 2 years
 - (3) 6 months
 - (4) 1 year
 - (5) I'm not sure

9. A good activity for a two year old is:

- ☐
- (1) cutting with scissors
 - (2) stringing small beads
 - (3) playing catch with a tennis ball
 - (4) putting in and taking out small things from a box.
 - (5) I'm not sure

10. Adolescence is a time when young people:

- ☐
- (1) are trying to grow up and do things for themselves without help from grownups
 - (2) should be free with no responsibilities
 - (3) should experiment with sex
 - (4) should experiment with drugs and alcohol
 - (5) I'm not sure

11. A good way to teach a child not to bite and hit is to:

- ☐
- (1) bite and hit him whenever he does it to anyone
 - (2) stop him and tell him that biting and hitting hurts
 - (3) ignore this behavior or make a joke out of it
 - (4) tell others to hurt him back so he'll know how it feels
 - (5) I'm not sure

12. A diaper rash is best healed by:

- ☐
- (1) keeping the diaper area clean and dry and putting powder on it
 - (2) keeping the diaper area clean and dry and putting ointment on it
 - (3) keeping the diaper area clean and dry
 - (4) ignoring it because it is normal and will heal by itself
 - (5) I'm not sure

13. The new law on abortion says that:

- ☐
- (1) there will be no abortions after 1978
 - (2) no teenage mothers will be given abortions
 - (3) abortions will not be paid for by Medical Assistance unless the mother's life is in danger
 - (4) the father of the baby must give his written permission for an abortion
 - (5) I'm not sure

14. If a girl knows that sooner or later she and her boyfriend will have sex, she should:

- ☐
- (1) talk with him about VD and contraceptives
 - (2) make sure she's the only one he's having sex with
 - (3) make sure he promises not to tell
 - (4) make sure he will continue to date her
 - (5) I'm not sure

15. If a girl is having a problem with her birth control method, she should:

- ☐
- (1) switch to another one
 - (2) see a nurse or doctor about it
 - (3) stop using anything and try not to have sex
 - (4) ask around and find out what other people are using; then switch.
 - (5) I'm not sure

16. The best way to bring a baby's fever down is:

- ☐
- (1) by taking the baby's temperature
 - (2) by putting extra clothes on the baby to keep him very warm
 - (3) by giving him fever medicine and a lot of liquids
 - (4) by putting a cold wet washcloth on his forehead
 - (5) I'm not sure

17. If a girl is dating the star of the basketball team, and she thinks he's losing interest in her, she should:

- ☐
- (1) try to get pregnant by him
 - (2) start having sex with him
 - (3) make him jealous any way she can
 - (4) keep dating him and be herself
 - (5) I'm not sure

18. In order to get respect from her friends, a girl should:

- ☐
- (1) do what most of her friends are doing
 - (2) be herself
 - (3) not take orders from her parents
 - (4) be popular with a lot of boys
 - (5) I'm not sure

19. When a baby gets diarrhea, a mother should contact the clinic for advice and:

☐

- (1) give the baby only cereal that day
- (2) give the baby only clear liquids that day
- (3) give the baby only milk that day
- (4) give him his regular food that day
- (5) I'm not sure

20. The crib toy that an infant would enjoy most is:

☐

- (1) a mobile
- (2) a stuffed animal
- (3) a ball
- (4) a pillow
- (5) I'm not sure

21. For an infant to remain in the WIC program, his mother must:

☐

- (1) call the Greenspring Dairy every month
- (2) tell the Department of Social Services
- (3) keep the delivery slip for proof
- (4) sign a form at the clinic every 6 months
- (5) I'm not sure

22. If a toddler's clothes caught on fire, the first thing a mother should do is:

☐

- (1) pull his clothes off as quickly as she can
- (2) throw a lot of water on him
- (3) throw a blanket around him and roll him on the floor
- (4) rush him to the sink or tub
- (5) I'm not sure

23. If a mother thinks the man next door beats his child with a belt, she should:

☐

- (1) mind her own business because the child doesn't belong to her
- (2) speak to the man and tell him it's wrong
- (3) call the police or Department of Social Services
- (4) ignore it because the man is just trying to shape up a bad child
- (5) I'm not sure

24. If a girl lives in a house where there is a lot of unhappiness and fussing, the best thing for her to do is:

☐

- (1) go live with a relative or friend
- (2) go live with her boyfriend
- (3) continue living there until she is 18 and then move out
- (4) talk to a counselor before making any changes
- (5) I'm not sure

25. The best way to deal with a 15 month old who keeps playing with the breakable things in the living room is to:
- ☐ (1) keep him out of the living room
(2) slap him whenever he touches them
(3) tell him "No" and expect him to listen
(4) put them out of his reach until he's older
(5) I'm not sure
26. A parent can help her child learn to talk well if she:
- ☐ (1) speaks in baby talk
(2) speaks clearly, simply, and often
(3) speaks only in long, complicated sentences
(4) makes sure that there are many children for him to play with
(5) I'm not sure
27. If a baby is not drinking enough milk, the parent should:
- ☐ (1) put sugar in the milk
(2) put chocolate syrup in the milk
(3) mix milk in with the foods he likes
(4) force him to drink it
(5) I'm not sure
28. If a girl forgets to take her birth control pills for two days, she should:
- ☐ (1) take three pills the next day
(2) take one a day after that and forget about the two she missed
(3) take two pills a day for the next two days and one a day after that
(4) not have sex until after her next period
(5) I'm not sure
29. If a mother is giving her two year old son a bath and the doorbell rings, she should:
- ☐ (1) tell her 5 year old son to answer the door
(2) ignore the bell and continue bathing the baby
(3) let her 5 year old watch the baby while she answers the door
(4) take the baby out of the tub and then answer the door
(5) I'm not sure
30. When a toddler knows how to climb up and down the stairs by himself, his mother should:
- ☐ (1) allow him to use the steps whenever he wants
(2) slap the child whenever he tries to go up and down alone
(3) keep a closed gate at the top and bottom of the stairs
(4) block the stairs with a chair
(5) I'm not sure

31. Babies who drink Carnation or Pet milk formulas need to:

- ☐ (1) start on solid foods earlier
 (2) be fed more often
 (3) take extra vitamins
 (4) have cereal put in their bottles
 (5) I'm not sure

32. A girl can not get an abortion if she is more than:

- ☐ (1) 22 weeks pregnant
 (2) 4 weeks pregnant
 (3) 16 weeks pregnant
 (4) 12 weeks pregnant
 (5) I'm not sure

33. If a baby drinks a poison with oil or acid in it, like lye, furniture polish, or lighter fluid, the mother should:

- ☐ (1) not make him vomit and rush him to the hospital
 (2) try to make him vomit and rush him to the hospital
 (3) wait to see if he seems all right before doing anything
 (4) give him milk to drink
 (5) I'm not sure

How much more would you like to know about these subjects?

	Nothing	Only a Little	Quite a Bit	Most Everything
How babies grow and develop				
Babies' needs and feelings				
How to be a good mother and parent				
Safety awareness				
How adolescents grow and develop				
Adolescents' needs and feelings				
Sex				
How to deal with your boyfriend				
Contraceptive methods				
How to handle contraceptive problems				
How to plan a family				
Making a daily schedule for yourself				
Making a daily schedule for your baby				
Housekeeping--like cooking, cleaning, decorating, etc.				